

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

11040 U.S. PTO
09/934797
08/22/01

Applicants: Raymond J. GORTE
John M. VOHS
Radu CRACIUN

Title: DIRECT OXIDATION METHOD FOR
GENERATING ELECTRICITY

Express Mail No.: EL815472706US

Date of Deposit: 22 August 2001

Concluded

FIRST INFORMATION DISCLOSURE STATEMENT

Box PATENT APPLICATION

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In accordance with Rule 1.56, the references listed on the attached Form PTO-1449 were cited during prosecution of the patent application listed below, which is relied upon for an earlier filing date under 35 U.S.C. 120:

Title: METHOD FOR SOLID OXIDE FUEL CELL
ANODE PREPARATION

Applicants: Raymond J. GORTE et al.

Serial No.: 09/261,324

Filing Date: 03 March 1999

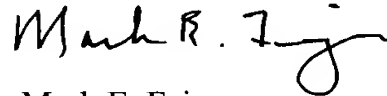
Attorney Docket No.: GRI-98-024

and are hereby brought to the attention of the Examiner as possibly being material to examination of the subject application.

Express Mail No.: EL815472706US

Copies of these references are not enclosed as they are contained in the
file of the related parent application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Mark E. Fejer". The signature is fluid and cursive, with the first name "Mark" being the most prominent.

Mark E. Fejer
Regis. No. 34,817

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FORM PTO-1449
(MODIFIED)U.S. DEPARTMENT OF COMMERCE
PATENT AND TRADEMARK OFFICE

ATTY. DOCKET NO.

GRI-00-023

SERIAL NO.

LIST OF PRIOR ART CITED BY APPLICANT

(Use several sheets if necessary)

APPLICANT(S)

Raymond J. GORTE et al.

FILING DATE

GROUP

 11040 U.S. PTO
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U.S. PATENT DOCUMENTS

*EXAMINER INITIAL		DOCUMENT NUMBER	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE
	AA	5,543,239	08/1996	Virkar et al.			
	AB	5,656,387	08/1997	Barnett et al.			
	AC	4,661,422	04/987	Marianowski et al.			
	AD	5,306,411	04/1994	Mazanec et al.			
	AE	5,676,806	10/1997	Van Berkel et al.			
	AF	5,731,097	04/1994	Miyashita et al.			
	AG						
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FOREIGN PATENT DOCUMENTS

		DOCUMENT NUMBER	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
							YES	NO
	AL	00/13791	03/2000	PCT				
	AM	01 007475	01/1989	Japan (Abstract)				
	AN	338 823	10/1989	EPO				
	AO							
	AP							

OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		K. Eguchi et al.: <i>Electrical properties of ceria-based oxides and their application to solid oxide fuel cells</i> , <i>Solid State Ionics</i> , 52, pp. 165-172, 1992.
	AS		M. Mogensen et al.: <i>Physical Properties of Mixed Conductor Solid Oxide Fuel Cell Anodes of Doped CeO₂</i> , <i>J. Electrochem. Soc.</i> , Vol. 141, No. 8, pp. 2122-2128, August 1994.
	AT		E.S. Putna et al.: <i>Ceria-Based Anodes for the Direct Oxidation of Methane in Solid Oxide Fuel Cells</i> , <i>Langmuir</i> , Vol. 11, No. 12, pp. 4832-4837, 1995.

EXAMINER

DATE CONSIDERED

***EXAMINER:** Initial if reference considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

USCOMM-DC 80-3985

P1005.1/ 10

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		R.T. Baker et al.: <i>Evaluation of perovskite anodes for the complete oxidation of dry methane in solid oxide fuel cells</i> , <u>Solid State Ionics</u> , 72, pp. 328-333, 1994.
	AS		K. Asano et al.: <i>A Novel Solid Oxide Fuel Cell System Using the Partial Oxidation of Methane</i> , <u>J. Electrochem. Soc.</u> , Vol. 142, No. 10, pp. 3241-3245, October 1995.
	AT		Y. Hiei et al.: <i>Partial oxidation of methane for internally reformed solid oxide fuel cell</i> , <u>Solid State Ionics</u> , Vol. 86-88, pp. 1267-1272, 1996.

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OTHER PRIOR ART (Including Author, Title, Date, Pertinent Pages, Etc.)

	AR		N.M. Sammes et al.: <i>Synthesis and properties of dense nickel and cobalt zirconia cermet anodes for solid oxide fuel cells</i> , <u>J. Mat. Sci</u> , 31, pp. 6069-6072, 1996.
	AS		C.H. Bartholomew: <i>Carbon Deposition in Steam Reforming and Methanation</i> , <u>Catal. Rev.--Sci. Eng.</u> , 24 (1), pp. 67-112, 1982.
	AT		T. Kawada et al: <i>Electrical properties of transition-metal-doped YSV</i> , <u>Solid State Ionics</u> , Vol. 53-56, pp. 418-425, 1992.

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	AR		T. Tsai et al.: <i>Effect of Mixed-Conducting Interfacial Layers on Solid Oxide Fuel Cell Anode Performance</i> , <u>J. Electrochem. Soc.</u> , Vol. 145, No. 5, pp. 1696-1701, May 1998.
	AS		H. Itoh et al.: <i>Configurational and Electrical Behavior of Ni-YSZ Cermet with Novel Microstructure for Solid Oxide Fuel Cell Anodes</i> , <u>J. Electrochem. Soc.</u> , Vol. 144, No. 2, pp. 641-646, February 1997.
	AT		H. Itoh et al.: <i>Improved Microstructure of Ni-YSZ Cermet Anode for SOFC with a Long Term Stability</i> , <u>Denki Kagaku</u> , Vol. 64, No. 6, pp. 549-554, 1996.

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	AR		H. Alqahtany et al.: <i>Methane Steam Reforming over Fe Electrodes in a Solid Electrolyte Cell,</i>
			<i>Energy & Fuels</i> , 7, pp. 495-504, 1993.
	AS		
	AT		

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3	NPL	5
4	NPL	3

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